

rejection. In the amendment, the Applicants deleted the language referred to by the Office Action in this § 112, first paragraph rejection. Therefore, as claim 1 no longer recites, "for producing a tracking error signal based on subtracting the second difference signal, a level of which is adjusted", the Applicants respectfully request that the rejection of claims 1, 2 and 5 under §112, first paragraph, be withdrawn.

Furthermore, the Office Action objected to the specification as failing to disclose "a multiplier for multiplying ...value", which was recited in claim 3. However, claim 3 was cancelled in the previous Response. Therefore, applicants respectfully request that the objection to the specification be withdrawn.

Claims 1 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohsato (U.S. Patent No. 5,159,589). The Applicants respectfully traverse this rejection and submit that the cited references fail to teach or suggest the features of the invention as recited in claims 1 and 5.

Claim 1 recites a reading system for reading a writable optical disc having an information writing track, a guiding track for introducing a laser beam to the information writing track, and prepit information including address information recorded on the guiding track. The system comprises a first photodetector having photodetecting elements divided at least by a first dividing line optically parallel with a tangential direction of the information writing track of the disc for detecting reflected light of a first laser beam irradiated to the information writing track. A second photodetector has photodetecting elements divided at least by a second dividing line optically parallel with the tangential direction for detecting reflected light of a second laser beam irradiated to the guiding track. A first difference signal producing means produces a first difference

signal based on a difference between outputs of the photodetecting elements of the first photodetector being divided by the first dividing line. A second difference signal producing means produces a second difference signal based on a difference between outputs of the photodetecting elements of the second photodetector being divided by the second dividing line. Level adjust means adjust a level of at least the second difference signal. A tracking error signal producing means produces a tracking error signal based on subtracting an output signal of the level adjust means from the first difference signal.

As a result of the claimed configuration of elements, the prepit information including address information is recorded on the land as the guiding track. Thus, the capacity for writing the information is increased, thereby improving the available efficiency of the disc. Further, since the prepit information for a guiding track is derived based on the difference signal between the outputs produced from the two-divided photodetector, the prepit information is ensured with a simple structure. The Applicants submit that the prior art of Ohsato fails to teach or suggest the claimed invention, and therefore, fails to provide the critical and non-obvious advantages which are provided by the invention.

As noted above, claims 1 and 5 were rejected as being unpatentable over Ohsato. Ohsato discloses an optical recording and/or reproducing apparatus comprising a photodetecting element 62 having parts 62A and 62B, photodetecting element 60 having parts 60a-60b and photodetecting element 64 having parts 64A and 64B. A subtractor 48A produces a first difference signal based on a difference between the output of the parts 62A and 62B of photodetecting element 62. A subtractor 46

produces a difference signal based on a difference between the outputs of the photodetecting part 60a-60b of the photodetecting element 50. The subtractor 48B produces a difference signal based on a difference between the output of the photodetecting element part 64A and 64B of photodetecting element 64. A difference signal S_m obtained from the subtractor 46 is supplied to a level controller 52 to be subjected, therein, to level adjustments with a gain of $2G_s$ and then supplied to one of input terminals of a subtractor 54. From the subtractor 54, a difference signal S_{ms} which corresponds to a level difference between the difference signal S_m , having been adjusted in level with a gain of $2G_s$ and the added signal S_s , is obtained to be supplied to one of input terminals of a divider 58. The signal-producing circuit block is constituted to obtain a first difference between detection output signals obtained respectively from the two parts of the first photo-detecting elements, a second difference between detection output signals obtained, respectively, between from the two parts of the photodetecting elements and a third difference between detection output signals obtained respectively from the two parts of the third detecting elements, and then to produce a tracking error signal based on a ratio of a difference between the first difference and the sum of the second and third differences in relation to a difference between the second and third differences.

With respect to independent claim 1 and dependent claim 5, the Applicants respectfully submit that Ohsato fails to teach or suggest the claimed features of the invention. As a preliminary matter, the Applicants submit that the Office Action has made an improper rejection of claims 1 and 5 under § 103. Claim 1 recites, in part, "tracking error signal producing means for producing a tracking error signal based on

subtracting an output signal of the level adjust means from the first difference signal.” However, the Office Action has not shown that Ohsato teaches or suggests producing a tracking error signal based on subtracting an output signal of the level adjust means from the first difference signal. The Office Action merely alleged that Ohsato teaches “a tracking error signal S_t meeting the applicant's claimed invention.” According to MPEP §706.02(j), a rejection under § 103 requires that a suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to yield a claimed invention. This Office Action has not provided a suggestion or a motivation in Ohsato or the prior art for modifying Ohsato to arrive at the claimed invention. The Office Action merely alleged that Ohsato teaches some of the elements of the claimed invention. Therefore, it appears that the Office Action has not complied with the requirements of § 103 and MPEP § 706.02(j).

The Applicants also submit that Ohsato fails to teach, suggest or disclose each and every feature of the invention as recited in claim 1. As the Applicants set forth in the previous Response, claim 1 recites producing a tracking error signal based on subtracting an output signal of the level adjust means from the first difference signal. In contrast, the tracking error signal S_t in Ohsato is produced based on a ratio of a difference of the first difference signal S_m and the sum of the second and third difference signals S_p , S_n in relation to the difference between the second and third difference signals S_p , S_n . Therefore, the tracking error signal in Ohsato is not comparable to the tracking error signal of the present invention as Ohsato fails to disclose the tracking error signal based on subtracting an output signal of the level adjust means from the first difference signal, as recited in claim 1.

Accordingly, the Applicants submit that the rejection of claim 1 does not comply with MPEP §706.02(j), which requires that the references teaches or suggest all of the claimed limitations. Accordingly, as Ohsato does not teach or suggest the features of the invention as recited in claim 1, the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 1 and 5 under §103.

Although the Office Action stated that the arguments filed on December 13, 2001 have been fully considered, as discussed above, it appears to the Applicants that the Office Action did not acknowledge the amendment made to claim 1 and the cancellation of claim 3. In response to the previously filed arguments, the Office Action repeated the rejection under 35 U.S.C. § 112, first paragraph, although one of the claims was canceled and the other removed the limitation identified in the rejection. Furthermore, in response to the arguments, the Office Action alleged that the Applicants presented an argument regarding "the guiding track having address information." However, the Applicants point out that no argument as such was presented in the Response. Address information was mentioned with respect to the results achieved by the claimed configuration of elements in this invention. The Applicants respectfully request that the Examiner consider the detailed arguments directed to the features of the invention as recited in the claims.

Under MPEP § 706.07, where a single previous Office Action contains a complete statement of the grounds of rejection, the final rejection may refer to such a statement and should also include a rebuttal of any arguments raised in the Applicant's reply. The Office Action did not include a rebuttal of the arguments related to the tracking error signal producing means for producing a tracking error signal, nor does it

appear that the Examiner considered the amendments to claim 1. Therefore, the Applicants respectfully request a new non-Final Office Action that properly considers the arguments and amendments set forth in the Response.

Claims 1, 2 and 5 are pending. Claims 2 and 5 depend from claim 1. The Applicants respectfully submit that claim 5 is allowable for its dependency from allowable base claim 1 as well as the additional subject matter recited therein. The Applicants note that claim 2 was indicated as rejected in the Office Action Summary. However, the Examiner made no explicit statements as to claim 2. The Applicants respectfully submit that claim 2 is also allowable for their dependency from allowable base claim 1. Accordingly, the Applicants respectfully request allowance of claims 1-1, 2 and 5 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 01-2300.

Respectfully submitted,



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